

WHAT IS CLAIMED IS:

1. A method for joining a fluid container and a fluid ejector, comprising:
arranging a fluid container including at least one heat stake, a fluid ejector and a substrate in order, the substrate including at least one aperture and at least one three-dimensional feature disposed in the vicinity of the at least one aperture;
applying pressure to the arranged fluid container, fluid ejector and substrate to bring the arranged fluid container, fluid ejector and substrate into respective contact and to cause the at least one heat stake to be inserted into the at least one aperture; and
applying thermal energy to the at least one heat stake so that the at least one heat stake deforms to at least partially fill the at least one aperture and the at least one three-dimensional feature.
2. The method of claim 1, wherein the fluid container is an ink manifold.
3. The method of claim 1, wherein the fluid ejector is a die module.
4. The method of claim 1, wherein the substrate is a heat sink.
5. The method of claim 1, wherein the fluid container includes two heat stakes and the substrate includes two apertures.
6. The method of claim 1, wherein at least one of the at least one three-dimensional feature is a circular groove surrounding the at least one aperture.
7. The method of claim 1, wherein at least one of the at least one three-dimensional feature is an circular well surrounding the at least one aperture.
8. The method of claim 1, wherein at least one of the at least one three-dimensional feature is a non-circular groove surrounding the at least one aperture.
9. The method of claim 1, wherein at least one of the at least one three-dimensional feature is a non-circular well surrounding the at least one aperture.
10. The method of claim 1, wherein an elastic member is interposed between the fluid container and the fluid ejector.
11. The method of claim 10, wherein the elastic member is a compression seal.
12. An inkjet cartridge comprising an ink container and a fluid ejector joined by the method of claim 1.
13. A printing device comprising the inkjet cartridge of claim 12.

14. A method for joining two dissimilar materials for precision alignment using a heat staking control feature, comprising:

placing a first object adjacent to a second object, the first object including at least one heat stake and the second object including at least one aperture and at least one three-dimensional feature disposed in the vicinity of the at least one aperture;

applying pressure to bring the first object and the second object into proximity and to cause the at least one heat stake to be inserted into the at least one aperture; and

applying thermal energy to the at least one heat stake so that the at least one heat stake deforms to at least partially fill the at least one aperture and the at least one three-dimensional feature.

15. A fluid container heat staked to a fluid ejector, comprising:

a fluid container including at least one heat stake; and

a fluid ejector provided between the fluid container and a substrate including at least one aperture;

wherein the at least one aperture has at least one three-dimensional feature and the at least one heat stake is inserted into the at least one aperture and thermally deformed to at least partially fill the at least one aperture and the at least one three-dimensional feature.

16. The fluid container of claim 15, wherein the substrate comprises at least one material selected from the group consisting of aluminum and copper.

17. The fluid container of claim 15, comprising two apertures.

18. The fluid container of claim 15, wherein at least one of the at least one three-dimensional feature is a circular groove.

19. The fluid container of claim 15, wherein at least one of the at least one three-dimensional feature is a circular well.

20. The fluid container of claim 15, wherein at least one of the at least one three-dimensional feature is a non-circular groove.

21. The fluid container of claim 15, wherein at least one of the at least one three-dimensional feature is a non-circular well.